



Cancer Insights

A Focus on Queensland's Aboriginal and
Torres Strait Islander Communities

2012-2021 1st edition

Acknowledgements

The *Cancer Insights: A Focus on Queensland's Aboriginal and Torres Strait Islander Communities* report has been developed under the auspices of the Queensland Cancer Control Safety and Quality Partnership (The Partnership).

The first Aboriginal and Torres Strait Islander subcommittee, chaired by Professor Gail Garvey AM, has been established as a subcommittee of The Partnership. The committee, representing Queensland across all Indigenous regions, provides greater agency over statewide outcome data related to Aboriginal and Torres Strait Islander individuals living with cancer. Recognising the importance of data for self-determination, and by placing Aboriginal and Torres Strait Islander people at the centre, the committee aims to inform targeted processes and strategies to improve outcomes, while addressing specific challenges and needs for Aboriginal and Torres Strait Islander peoples.

The authors acknowledge and appreciate the work of Cancer Alliance Queensland who contribute to and participate in the maintenance of the Queensland Cancer Register and the Queensland Oncology Repository.

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Supporting artwork produced for *Cancer Insights: A focus on Queensland's Aboriginal and Torres Strait Islander Communities* by the First Nations Cancer and Wellbeing Research Group, Faculty of Medicine, The University of Queensland (FNCWR) Aboriginal artist Craig Carson, Wakka Wakka and Communications Designer Colleen Lourenco.

Acknowledgement of Country

We acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of Country throughout Queensland and the Torres Strait. We recognise their diversity and continuing connection to the land, sea, sky, waterways and culture.

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Foreword

I am pleased to support the release of this key report *Cancer Insights: A Focus on Queensland's Aboriginal and Torres Strait Islander Communities*. This report has evolved from the establishment of an Aboriginal and Torres Strait Islander subcommittee that has been formed to report on cancer incidence, survival, and other indicators relevant to the evaluation, management, and monitoring of cancer services for Aboriginal and Torres Strait Islander communities. The subcommittee is a stepping stone towards providing Aboriginal and Torres Strait Islander people greater agency over how their data are governed within the Queensland Cancer Control Safety and Quality Partnership.

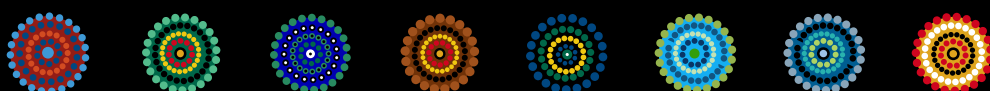
Aboriginal and Torres Strait Islander people are more likely to be diagnosed with cancer, have poorer survival outcomes, and die from cancer when compared to other Queenslanders. This report aims to shed light on cancer incidence, treatment, and outcomes among Aboriginal and Torres Strait Islander peoples across eight Indigenous regions of Queensland using state-wide data to inform and guide policy and practice.

It is crucial to highlight the importance of insights from high-quality data in fostering discussions about the impact of cancer, regarding equity for Aboriginal and Torres Strait Islander people at a state-wide and regional level. By leveraging these insights, we can ensure that our efforts are targeted toward addressing the diverse needs of Aboriginal and Torres Strait Islander people affected by cancer.

This report was made possible through the support of the Cancer Alliance Queensland team and is not an endpoint but a foundation for ongoing efforts to ensure equitable cancer care and outcomes for Aboriginal and Torres Strait Islander communities. I urge all stakeholders to use the insights from this report to inform policies, programs, and practices that will support improved cancer outcomes for Aboriginal and Torres Strait Islander peoples. Together, with commitment and collaboration, we can make significant strides towards equity in cancer care and improve the health and well-being of Aboriginal and Torres Strait Islander peoples.

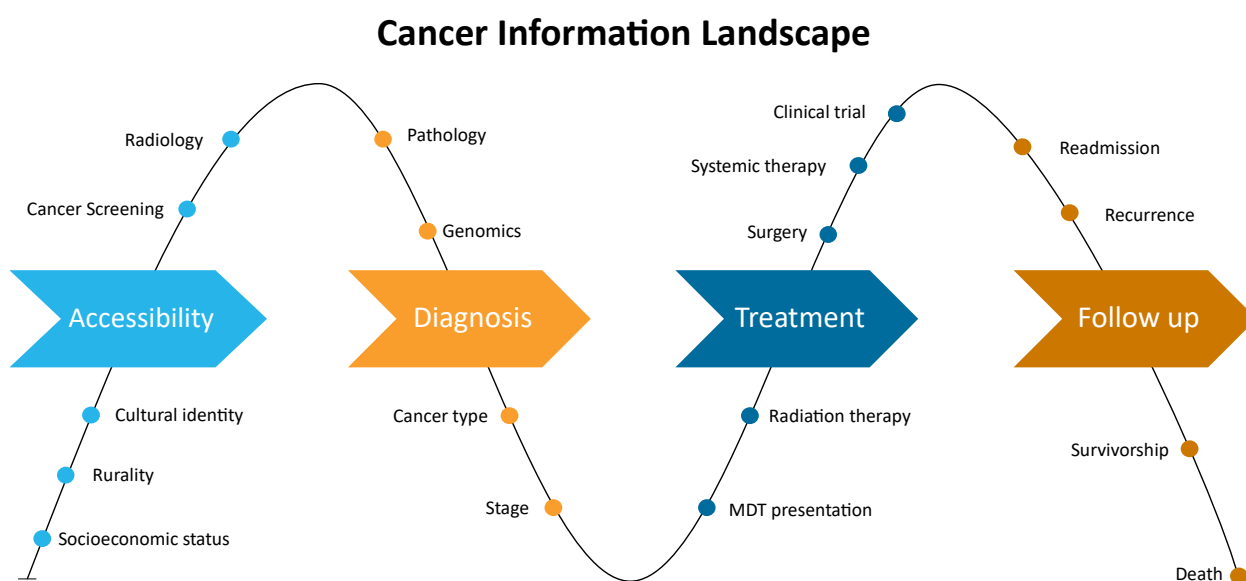


Professor Gail Garvey AM



Where does the data come from?

Since 2004 Cancer Alliance Queensland (CAQ) has compiled and analysed a vast amount of information about cancer incidence, mortality, treatment, and survival. Key to CAQ's program of work is the ability to match and link population-based cancer information on an individual person basis. This matched and linked data is housed in the Queensland Oncology Repository (QOR), a resource managed by CAQ. This centralised repository compiles and collates data from a range of source systems including the Queensland Cancer Register, private and public hospital admissions data, death data, treatment systems, public and private pathology, hospital clinical data systems and QOOL. From this information, a personalised record for each cancer patient is created offering practical information for healthcare planning, management, and treatment.



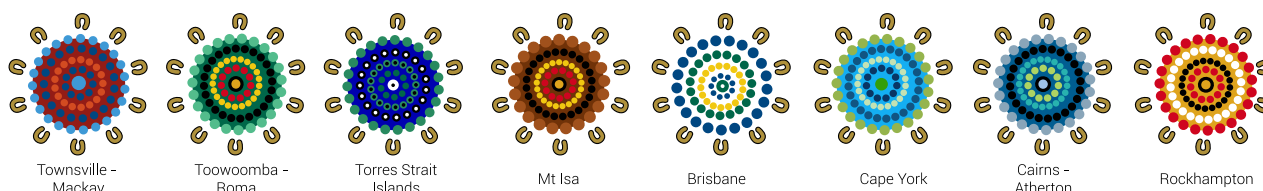
Prospective lifelong record for every person with cancer

For further information on data sources and methods refer to the [Queensland Cancer Quality Index 2007-2021: Technical Appendix](#).



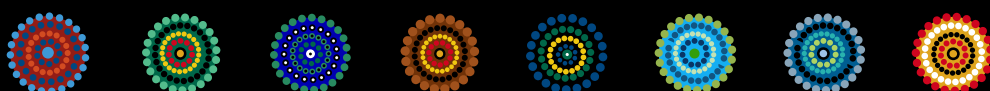
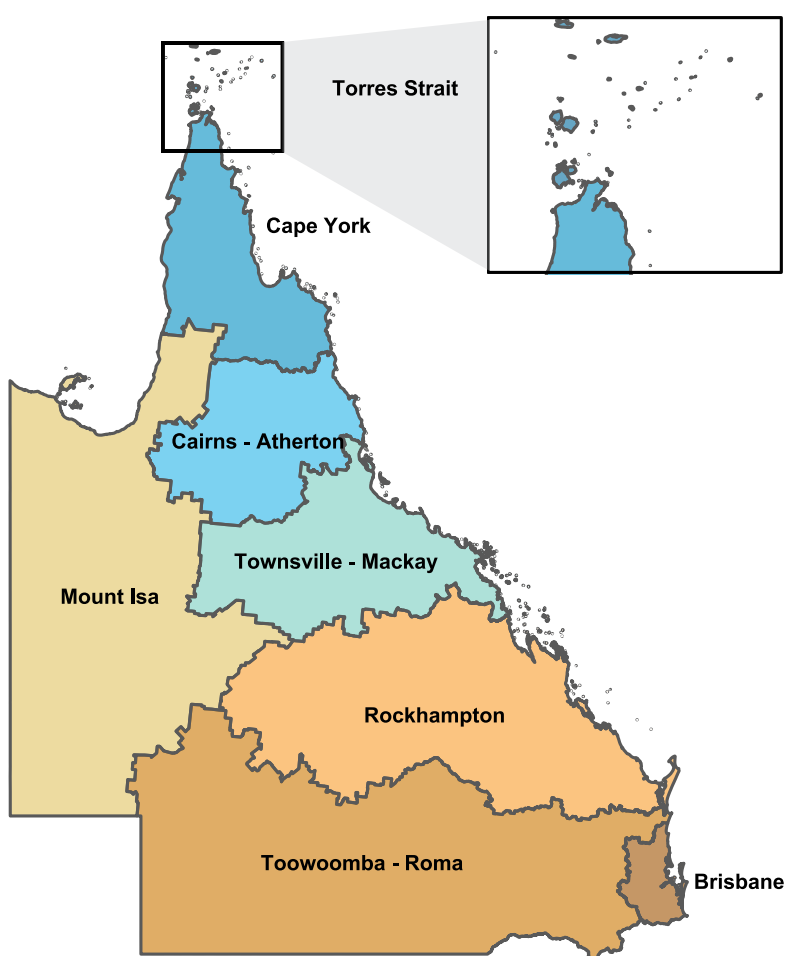
How to interpret this report

The number of cases and/or deaths from individual cancer types within a region can be very small and fluctuate from year to year. Care should be taken when assessing differences based on these small numbers, as this may not indicate a true difference in the results. In some instances, fewer than six people were affected by a given cancer or within a given region. In these cases, results have been suppressed to ensure people are not identifiable. In these cases, values have been replaced with *.



Where appropriate, rates of diagnoses, deaths and treatment have been calculated by Indigenous regions as defined by the Australian Bureau of Statistics (ABS) with icons representing each region shown above. These geographic regions of Queensland are shown in the figure below. For further information on these geographic areas, see the Glossary (page 30).

Indigenous regions of Queensland



Cancer selection

Lung



Breast



Bowel



Uterus



Pancreas



Liver



This report reviews diagnosis and treatment rates for Aboriginal and Torres Strait Islander people residing in Queensland. When selecting cancer types for inclusion, the number of people diagnosed with the above cancers were considered along with the complexity of treatment. Cancers affecting many people and likely to result in contact or admission within a hospital setting for the treatment of the cancer have been included. Based on this work, the cancers included here are shown in the table below.

Cancer groups used	Cancer types included
Lung	Non-small cell lung cancer
Breast	Female invasive breast cancer
Bowel	Colon (Excluding appendix)
	Rectal
	Rectosigmoid junction
	Overlapping lesion of rectum, anus and anal canal
Uterus (womb)	Uterine
Pancreas	Pancreas
Liver	Liver

For more information regarding morphology exclusions specific to cancer sites and ICD10 site codes, please refer to the [Queensland Cancer Quality Index 2007-2021: Technical Appendix](#).

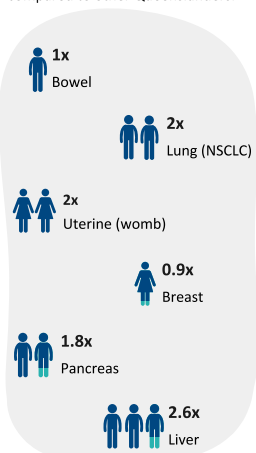


Cancer diagnoses

Among Aboriginal and Torres Strait Islander Queenslanders (2012-2021)

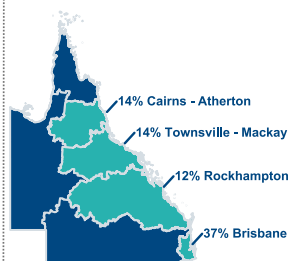
Diagnosis

Aboriginal and Torres Strait Islander Queenslanders experience higher diagnosis rates for several cancer types compared to other Queenslanders.



Region

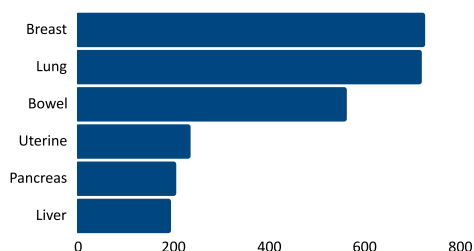
Where in Queensland are cancer diagnoses occurring?



78% of cases of these cancers diagnosed in 1/2 of regions

Cancer type

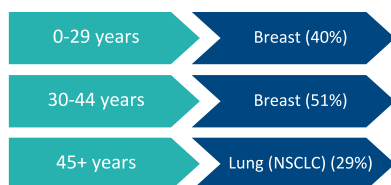
Most common cancer diagnosis



Breast and uterine cancers are female only cancers

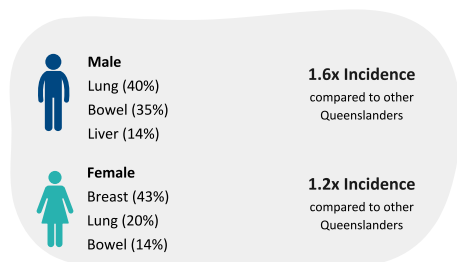
Age group

Most common cancer diagnosis by age group



Sex

Most common cancer diagnosis by sex



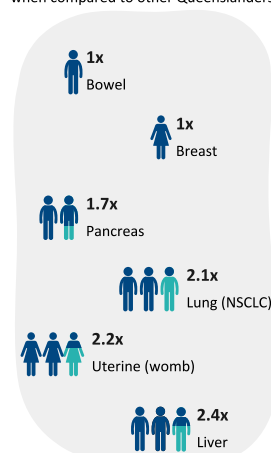
Note: Percentages above are a proportion of the 6 cancers considered in this report.

Cancer deaths and survival

Among Aboriginal and Torres Strait Islander Queenslanders (2012-2021)

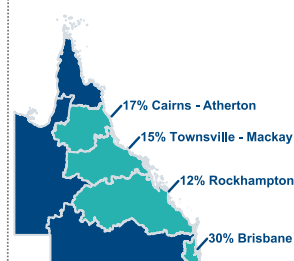
Mortality

Aboriginal and Torres Strait Islander Queenslanders experience higher mortality rates for several cancer types when compared to other Queenslanders.



Region

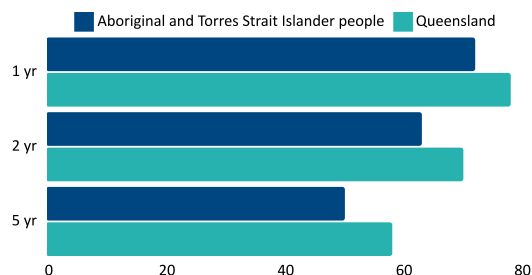
Where in Queensland are cancer deaths occurring?



74% of deaths due to these cancers occurred in 1/2 of regions

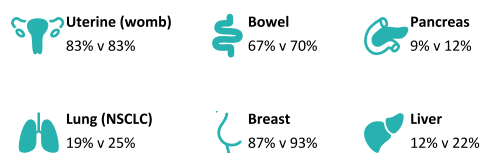
Survival from diagnosis

By all cancer diagnosis



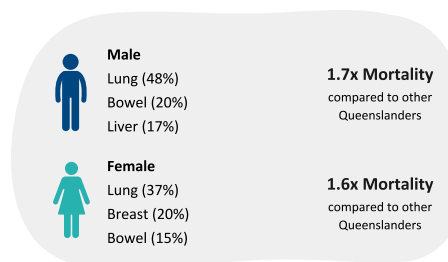
5 year relative survival

between Aboriginal and Torres Strait Islander people and other Queenslanders



Sex

Most common cancer deaths by sex



1 | Cancer overview

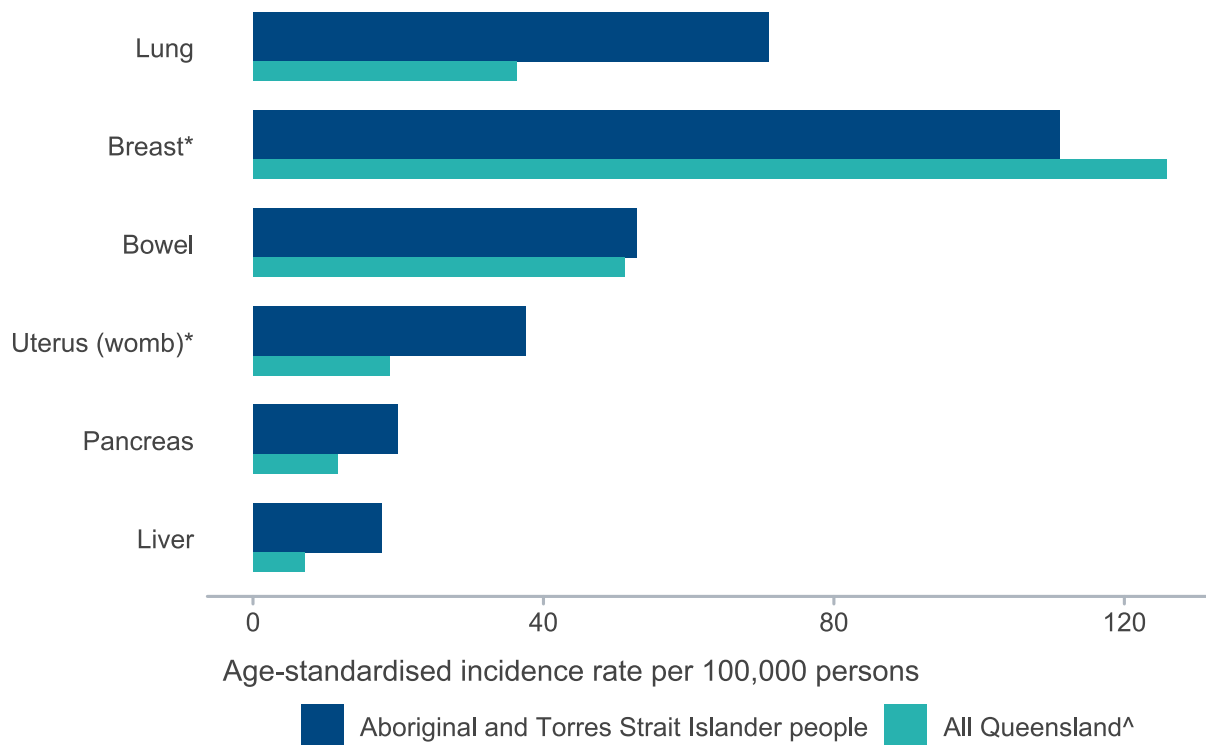
Assessing the impact of cancer on Aboriginal and Torres Strait Islander peoples and communities in Queensland



1.1 | Diagnosis rates

What is the rate of diagnosis of these cancers in Aboriginal and Torres Strait Islander people?

2012-2021



Refer to glossary for methodological information.
 *ASR for cancers of the breast and uterus are given per 100,000 women.
 ^All Queensland includes Indigenous and non-Indigenous people.

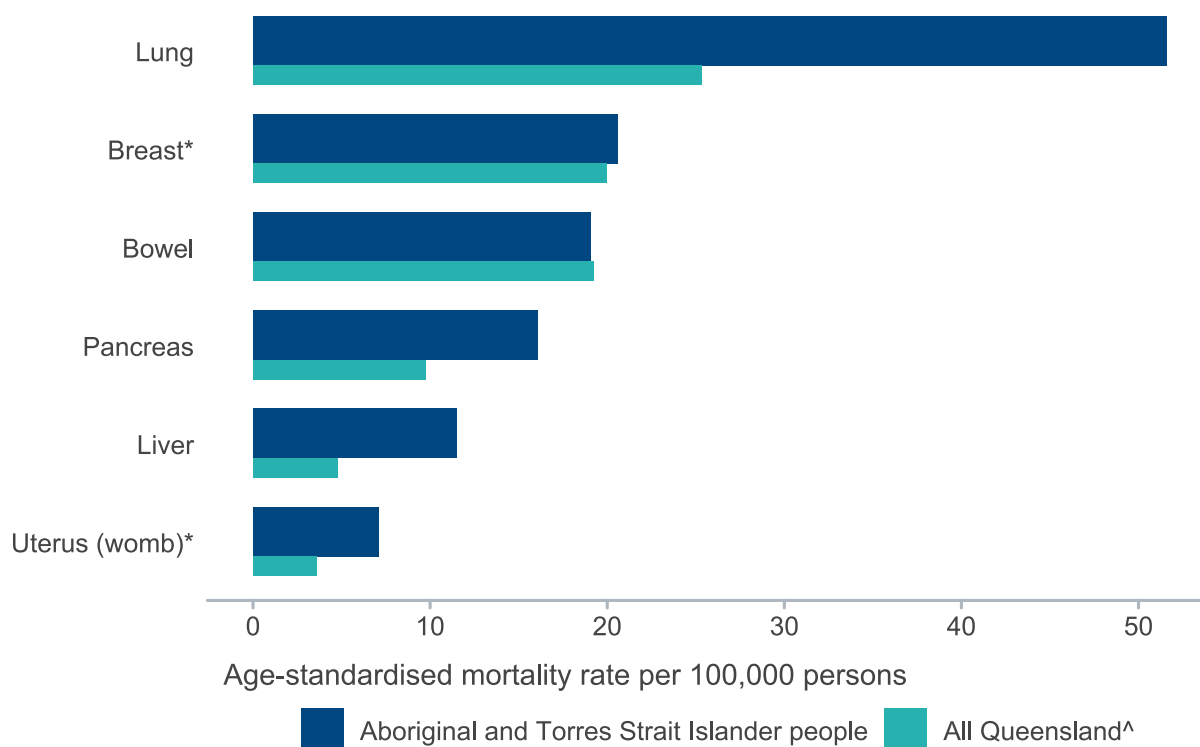
The rates of lung, uterus, pancreas and liver cancer are higher among Aboriginal and Torres Strait Islander people than in the overall Queensland population. In contrast, rates of female breast cancer are lower, while the rate of bowel cancer is about the same.



1.2 | Death rates

What is the rate of deaths due to these cancers in Aboriginal and Torres Strait Islander people?

2012-2021



Refer to glossary for methodological information.
*ASR for cancers of the breast and uterus are given per 100,000 women.
^All Queensland includes Indigenous and non-Indigenous people.

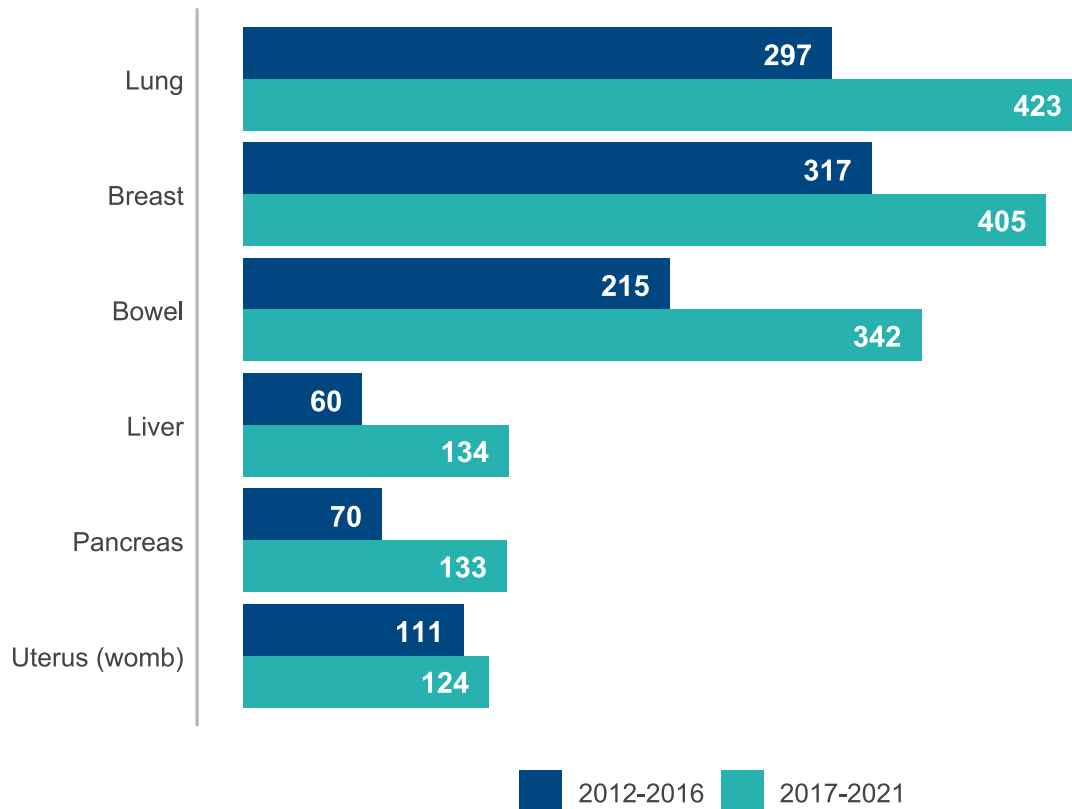
Aboriginal and Torres Strait Islander people are at a higher risk of death from lung, pancreas, liver and uterus cancer than the overall Queensland population. The risk of death from bowel and breast cancers is similar to Queensland overall.



1.3 | Diagnosis

What is the number of Aboriginal and Torres Strait Islander people with a newly diagnosed cancer?

2012-2021



Refer to glossary for methodological information.

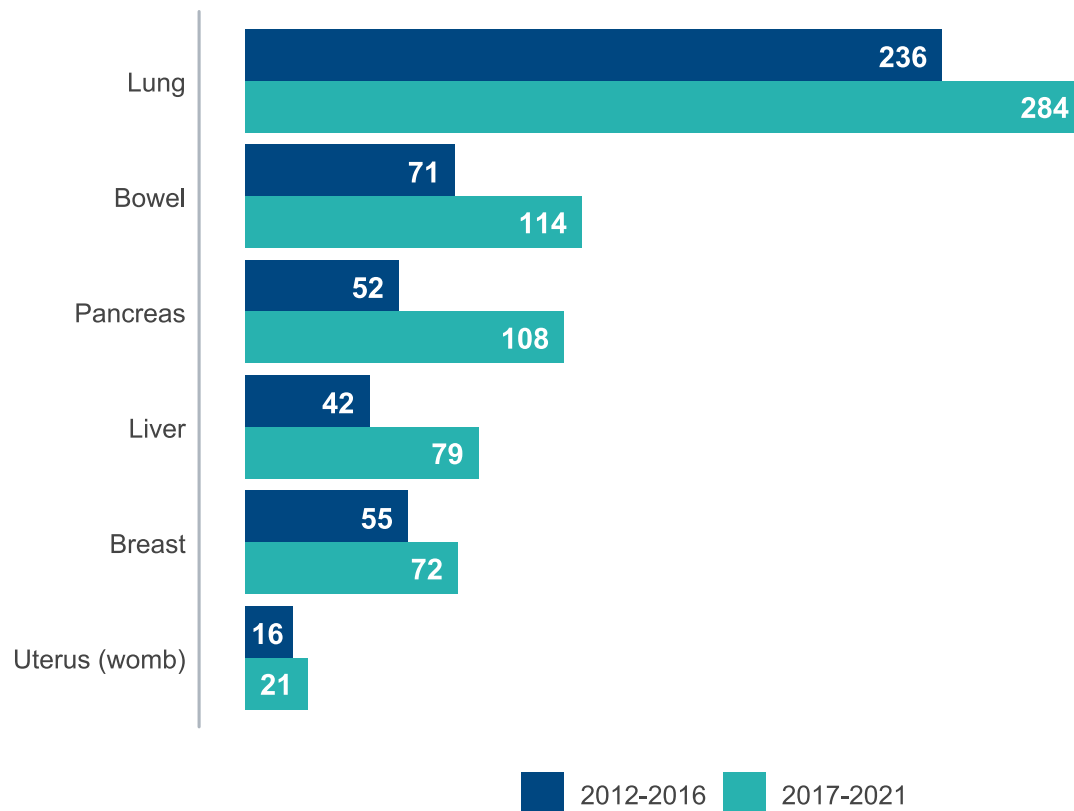
Lung and breast cancers continue to be the cancers having the highest impact.



1.4 | Death

What is the number of Aboriginal and Torres Strait Islander people dying of cancer?

2012-2021



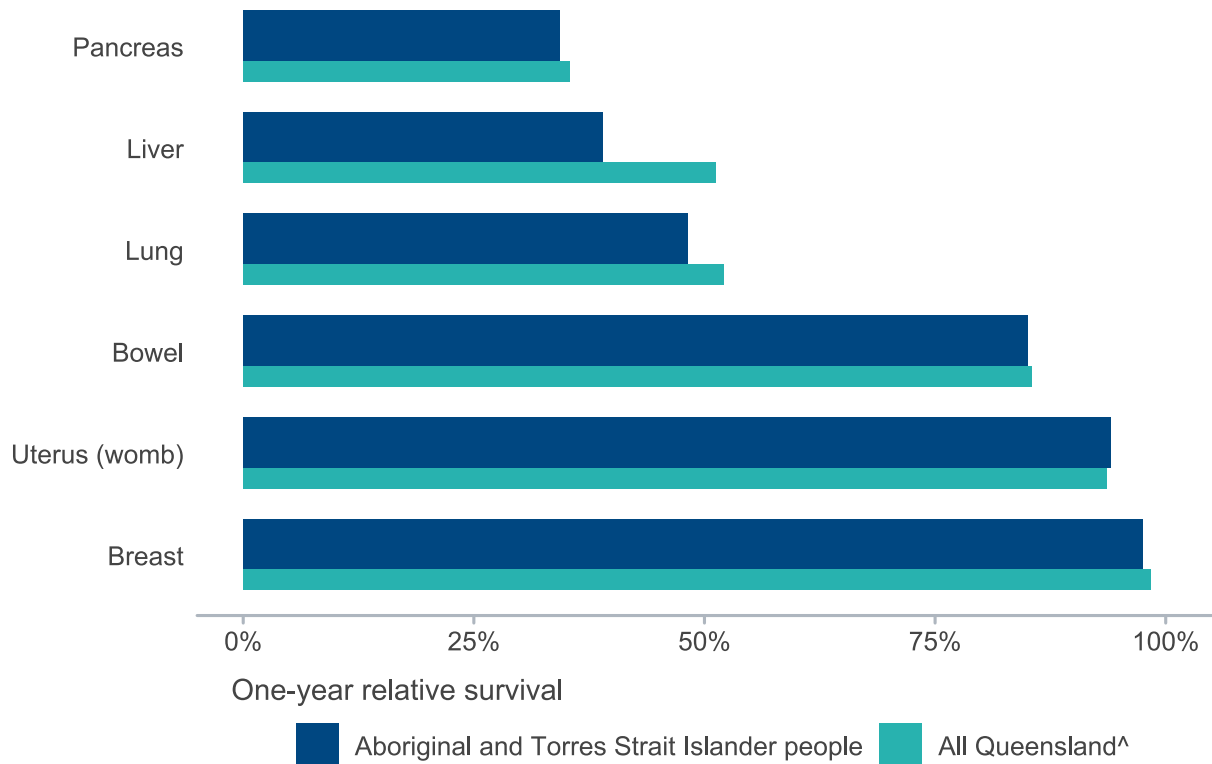
Refer to glossary for methodological information.

Lung cancer is the leading cause of cancer death.

1.5 | One-year survival

How many Aboriginal and Torres Strait Islander people are alive one year after diagnosis?

2012-2021



Refer to glossary for methodological information.
^All Queensland includes Indigenous and non-Indigenous people.

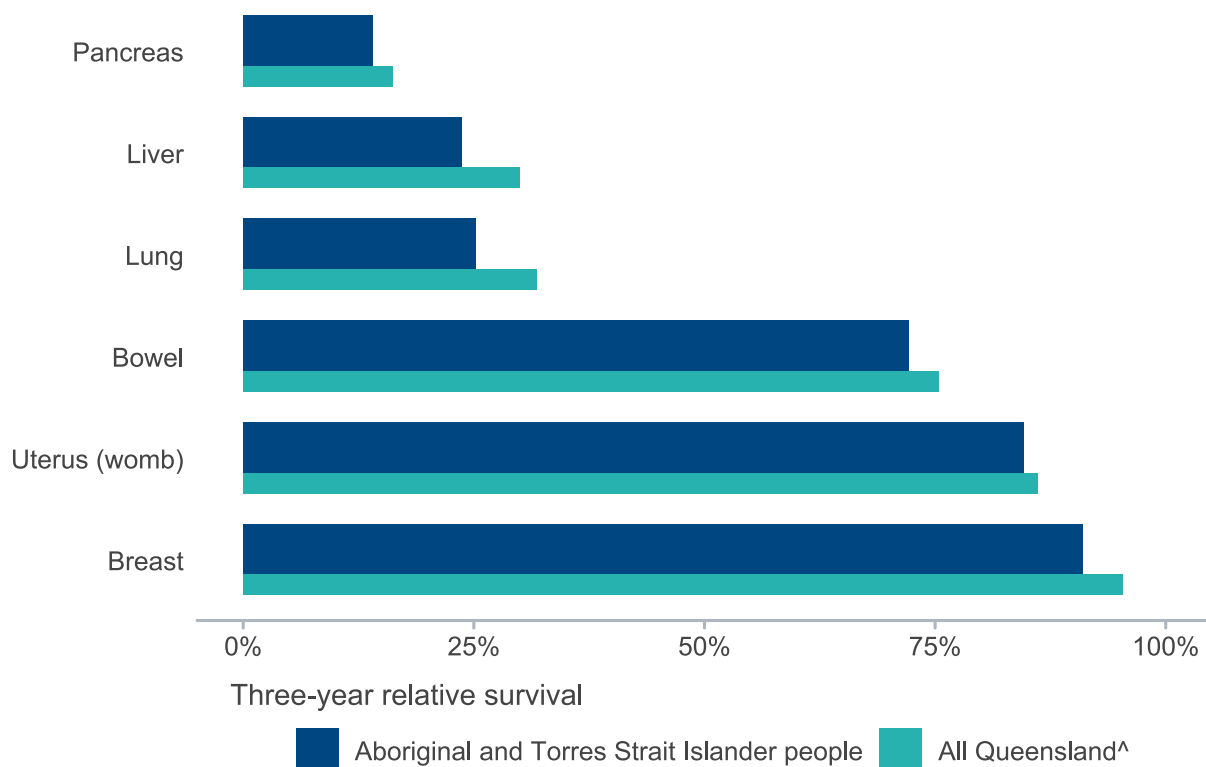
One-year survival is lowest among those diagnosed with pancreas, liver or lung cancer. Aboriginal and Torres Strait Islander people with liver cancer experience poorer survival than Queenslanders overall.



1.6 | Three-year survival

How many Aboriginal and Torres Strait Islander people are alive three years after diagnosis?

2012-2021



Refer to glossary for methodological information.
^All Queensland includes Indigenous and non-Indigenous people.

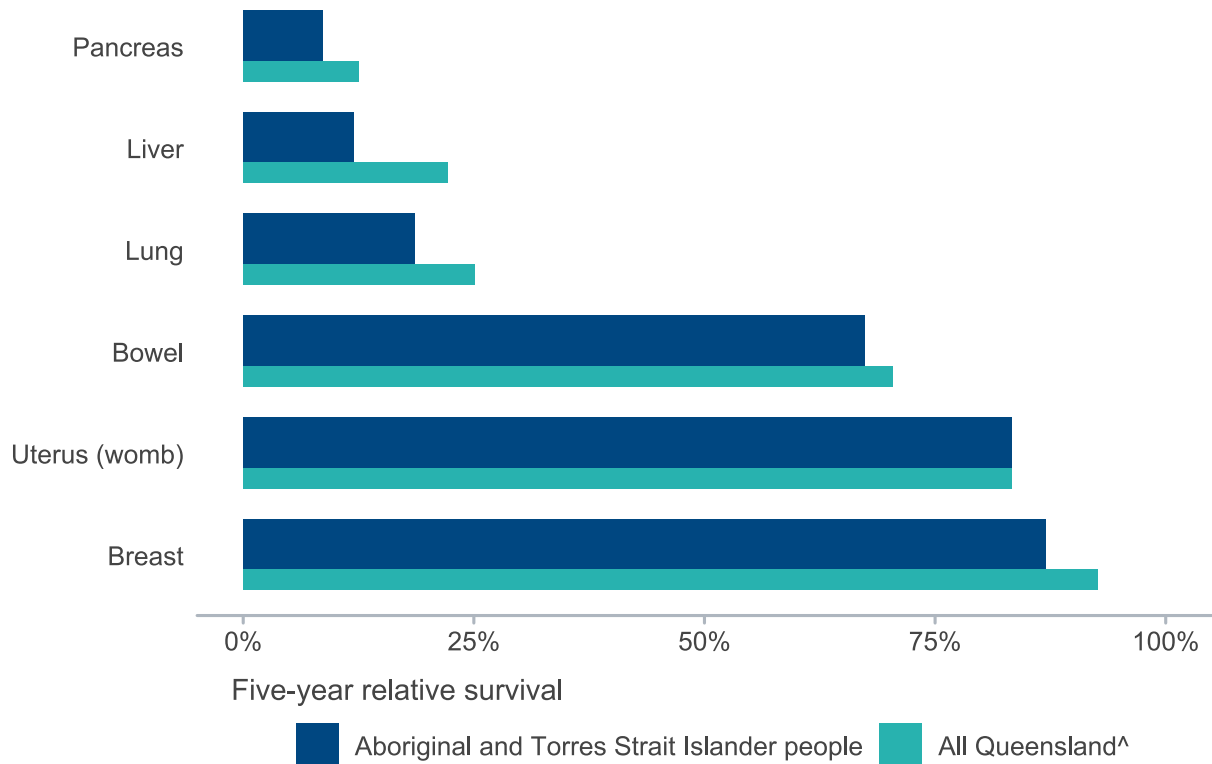
Three-year survival is lowest among those diagnosed with pancreas, liver or lung cancer. Aboriginal and Torres Strait Islander people with liver or lung cancer experience poorer survival than Queenslanders overall.



1.7 | Five year-survival

How many Aboriginal and Torres Strait Islander people are alive five years after diagnosis?

2012-2021



Refer to glossary for methodological information.
^All Queensland includes Indigenous and non-Indigenous people.

Five-year survival is poor for all Queenslanders diagnosed with liver, lung or pancreas cancers, and Aboriginal and Torres Strait Islander people with these cancers experience poorer survival than Queenslanders overall.



2 | Treatment and support

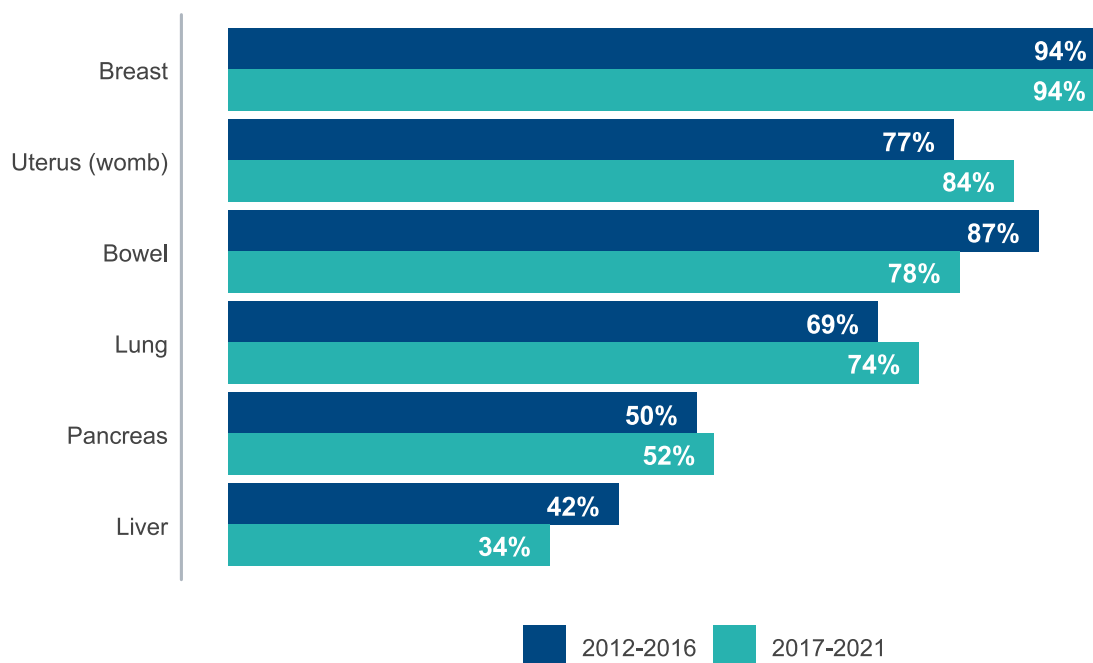
Monitoring care for Aboriginal and Torres Strait Islander people with cancer



2.1 | Treatment

What percentage of Aboriginal and Torres Strait Islander people with cancer received treatment?

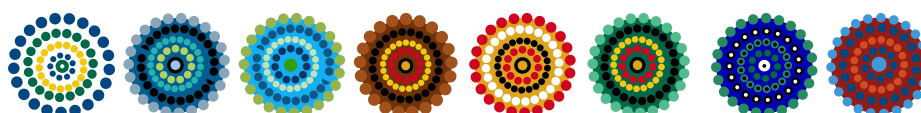
2012-2021



See glossary for information on surgical, radiation and chemotherapy treatment inclusions.

What percentage of Aboriginal and Torres Strait Islander people with cancer received treatment by Indigenous region?

2012-2021



	All Queensland [^]	Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	75%	77%	63%	56%	75%	71%	71%	59%	76%
Breast	94%	94%	93%	83%	90%	96%	94%	91%	94%
Bowel	83%	82%	75%	100%	91%	87%	79%	80%	77%
Uterus (womb)	88%	84%	77%	89%	70%	82%	70%	82%	84%
Pancreas	50%	63%	59%	57%	17%	42%	49%	*	33%
Liver	46%	43%	28%	32%	31%	41%	33%	*	38%

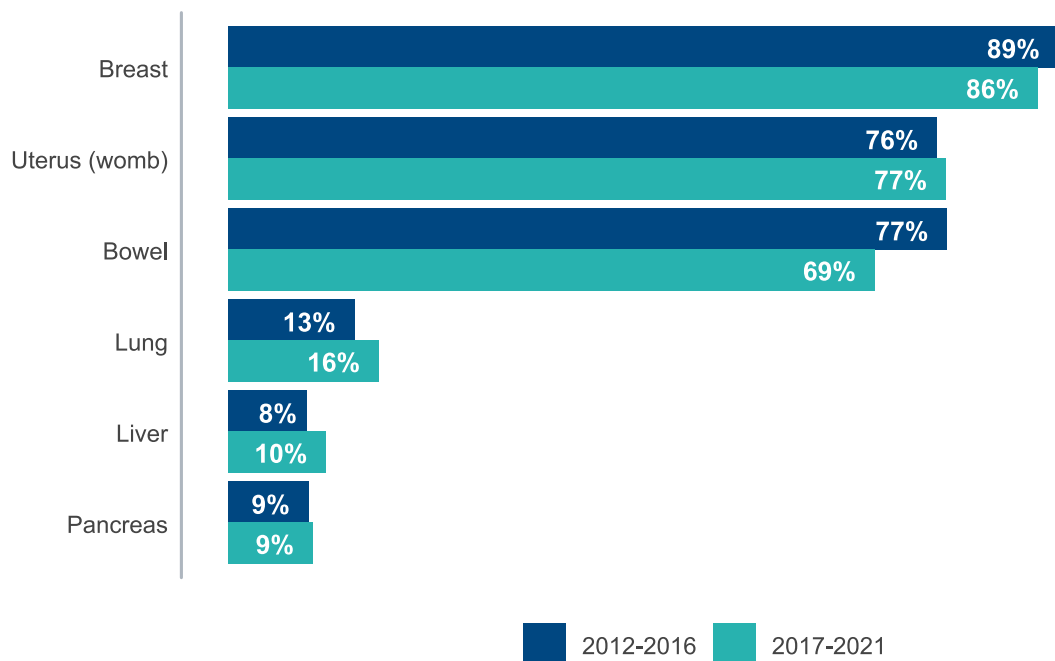
[^]All Queensland includes Indigenous and non-Indigenous people.



2.2 | Surgery

What percentage of Aboriginal and Torres Strait Islander people with cancer received surgery?

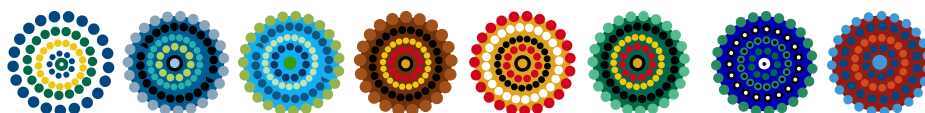
2012-2021



See glossary for information on surgical treatments.

What percentage of Aboriginal and Torres Strait Islander people with cancer received cancer surgery by Indigenous region?

2012-2021



	All Queensland [^]	Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	21%	18%	17%	6.3%	13%	16%	9.7%	4.5%	13%
Breast	90%	88%	87%	71%	81%	90%	91%	83%	87%
Bowel	75%	76%	62%	89%	73%	76%	70%	65%	65%
Uterus (womb)	84%	81%	73%	89%	70%	71%	57%	82%	79%
Pancreas	9.4%	13%	8.8%	0%	17%	3.0%	8.6%	*	9.5%
Liver	18%	12%	3.4%	5.3%	0%	18%	5.6%	*	19%

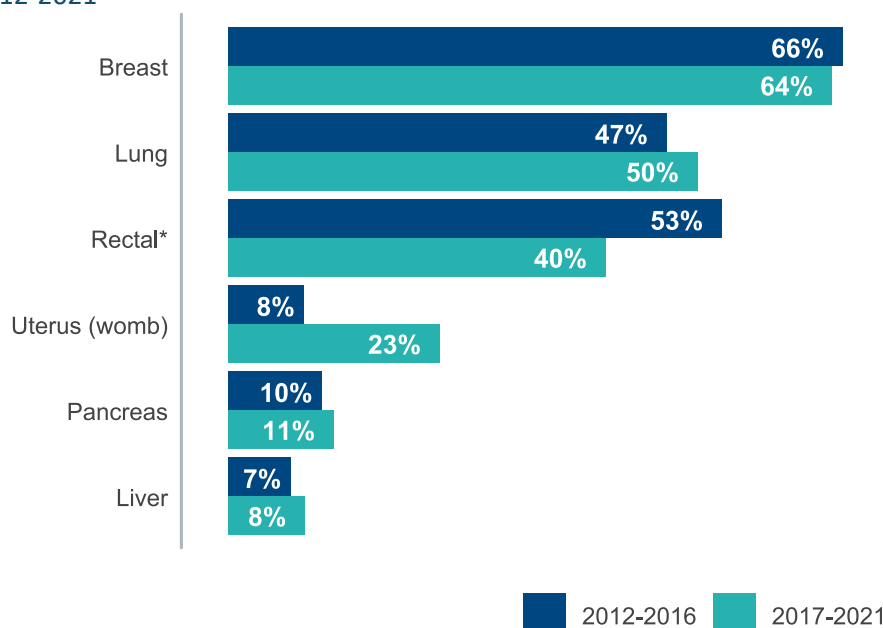
[^]All Queensland includes Indigenous and non-Indigenous people.



2.3 | Radiation therapy

What percentage of Aboriginal and Torres Strait Islander people with cancer received radiation therapy?

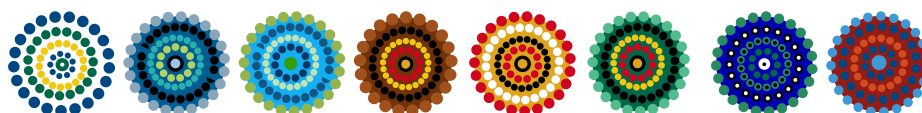
2012-2021



See glossary for information on radiation therapy.
*Radiation therapy is not commonly used in the treatment of colon cancer, so only rectal cancer is reported here.

What percentage of Aboriginal and Torres Strait Islander people with cancer received radiation therapy by Indigenous region?

2012-2021



	All Queensland [^]	Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	46%	51%	44%	44%	46%	46%	50%	45%	51%
Breast	65%	64%	71%	50%	62%	61%	70%	70%	63%
Rectal	35%	30%	50%	*	83%	57%	42%	55%	54%
Uterus (womb)	22%	19%	15%	16%	0%	24%	13%	24%	11%
Pancreas	8.1%	19%	5.9%	14%	0%	6.1%	5.7%	*	9.5%
Liver	9.5%	10%	3.4%	5.3%	7.7%	0%	11%	*	14%

[^]All Queensland includes Indigenous and non-Indigenous people.

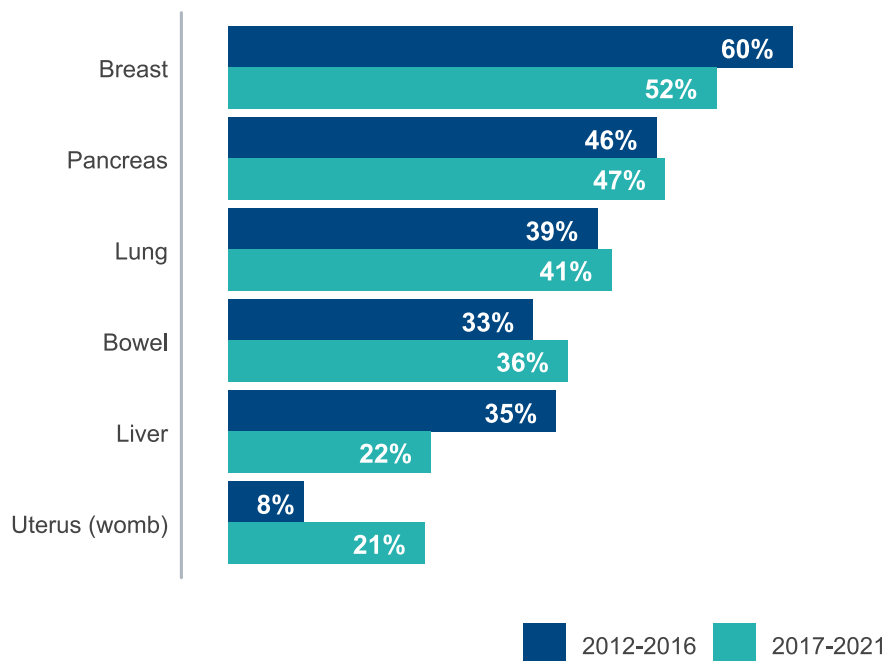
It is noted that there is an increase in the percentage of Aboriginal and Torres Strait Islander women with uterine cancer receiving radiation therapy between time periods. The same trend is displayed for all Queenslanders with uterine cancer.



2.4 | Chemotherapy

What percentage of Aboriginal and Torres Strait Islander people with cancer received chemotherapy?

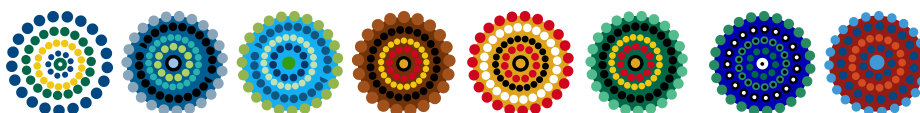
2012-2021



See glossary for information on chemotherapy.

What percentage of Aboriginal and Torres Strait Islander people with cancer received chemotherapy by Indigenous region?

2012-2021



	All Queensland [^]	Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	41%	46%	30%	28%	50%	35%	38%	27%	48%
Breast	45%	55%	53%	54%	57%	59%	52%	52%	62%
Bowel	32%	31%	26%	22%	59%	42%	29%	35%	47%
Uterus (womb)	22%	17%	15%	11%	10%	12%	13%	18%	16%
Pancreas	46%	56%	53%	43%	17%	42%	49%	*	24%
Liver	27%	30%	21%	21%	23%	23%	22%	*	33%

[^]All Queensland includes Indigenous and non-Indigenous people.



2.5 | Time to treatment

What percentage of Aboriginal and Torres Strait Islander people received first cancer treatment within 30 days of diagnosis?

2012-2021

First treatment facility type*

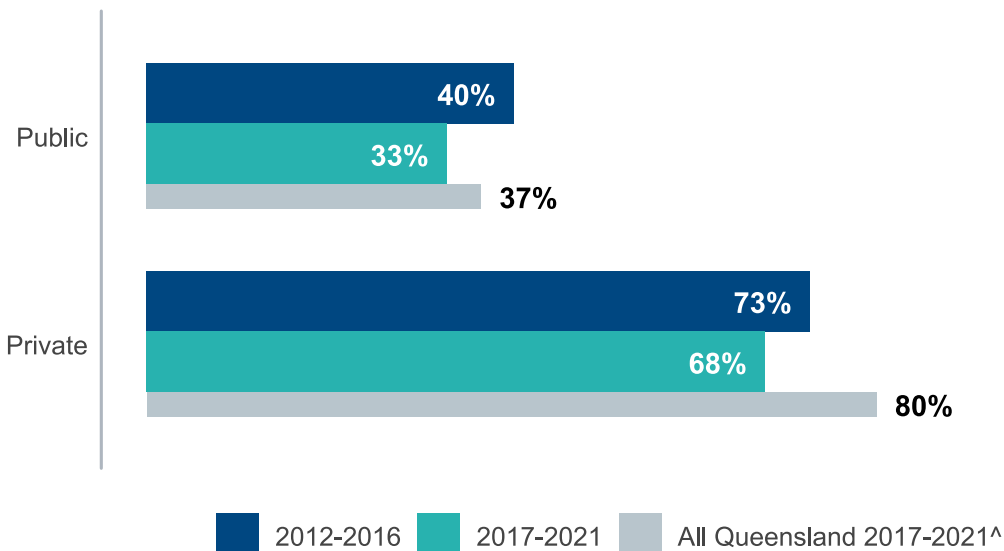


Figure includes Aboriginal and Torres Strait Islander people diagnosed with lung, breast, bowel, uterus, pancreas and liver cancers.
See glossary for information on surgical, radiation and chemotherapy treatment inclusions.
*First treatment occurring at Public/Private Partnerships (PPP) RT facilities has been grouped with first treatment at public facilities.
^All Queensland includes Indigenous and non-Indigenous people.

While treatment is delivered earlier in private facilities, Aboriginal and Torres Strait Islander people are less likely to access private facilities.



Supplementary counts



1.3 | Diagnosis

2012-2021

What is the incidence of these cancers?

Cancer type	Aboriginal and Torres Strait Islander people						All Queensland					
	All diagnoses		Male		Female		All diagnoses		Male		Female	
	Diagnoses	Rate	Diagnoses	Rate	Diagnoses	Rate	Diagnoses	Rate	Diagnoses	Rate	Diagnoses	Rate
Lung	720	71.0	371	81.4	349	62.6	20,515	36.3	11,842	44.0	8,673	29.6
Breast*	722	111.0			722	111.0	34,850	125.8			34,850	125.8
Bowel	557	52.8	320	68.3	237	40.3	28,359	51.2	15,805	59.9	12,554	43.1
Uterus (womb)*	235	37.5			235	37.5	5,385	18.8			5,385	18.8
Pancreas	203	19.9	104	22.7	99	17.7	6,557	11.7	3,509	13.2	3,048	10.3
Liver	194	17.7	133	25.6	61	11.0	3,971	7.0	2,938	10.8	1,033	3.5

Age-standardised incidence per 100,000 persons. Refer to glossary for methodological information.

*ASR for cancers of the breast and uterus are given per 100,000 women.

1.4 | Death

2012-2021

What is the mortality due to these cancers?

Cancer type	Aboriginal and Torres Strait Islander people						All Queensland					
	All deaths		Male		Female		All deaths		Male		Female	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Lung	520	51.6	288	62.2	232	42.8	14,325	25.3	8,680	32.6	5,645	19.1
Breast*	127	20.6			127	20.6	5,820	20.0			5,820	20.0
Bowel	185	19.1	99	23.0	86	15.9	10,780	19.2	5,934	23.1	4,846	15.9
Uterus (womb)*	37	7.1			37	7.1	1,063	3.6			1,063	3.6
Pancreas	160	16.1	80	17.0	80	15.2	5,505	9.8	2,962	11.2	2,543	8.4
Liver	121	11.5	79	16.1	42	7.6	2,701	4.8	1,959	7.3	742	2.5

Age-standardised mortality per 100,000 persons. Refer to glossary for methodological information.

*ASR for cancers of the breast and uterus are given per 100,000 women.



1.5, 1.6 & 1.7 | Relative survival

2012-2021

What percentage of Aboriginal and Torres Strait Islander people with cancer are living one, three and five years after diagnosis?

Cancer type	Aboriginal and Torres Strait Islander people			All Queensland		
	One-year	Three-year	Five-year	One-year	Three-year	Five-year
Lung	48% (44-52)	25% (22-29)	19% (15-22)	52% (51-53)	32% (31-32)	25% (24-26)
Breast	98% (96-99)	91% (88-93)	87% (84-90)	98% (98-99)	95% (95-96)	93% (92-93)
Bowel	85% (81-88)	72% (68-76)	67% (62-72)	85% (85-86)	75% (75-76)	70% (70-71)
Uterus (womb)	94% (90-97)	85% (79-89)	83% (77-88)	94% (93-94)	86% (85-87)	83% (82-85)
Pancreas	34% (28-41)	14% (9-20)	9% (5-14)	35% (34-37)	16% (15-17)	12% (12-13)
Liver	39% (32-46)	24% (17-31)	12% (7-18)	51% (50-53)	30% (28-32)	22% (21-24)

Relative survival was calculated using the Ederer II method, and the period approach was used. Relative survival was calculated for all persons aged 0-89 at diagnosis.

See glossary for further information.

2.1 | Treatment

2012-2021

What percentage of Aboriginal and Torres Strait Islander people with cancer received treatment by Indigenous region?

n: Number of people who received treatment (surgery, radiation therapy or chemotherapy)

N: Number of people diagnosed with cancers of interest

Cancer type	2012-2016	2017-2021	2012-2021							
			Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	69% 206/297	74% 312/423	77% 208/270	63% 67/106	56% 18/32	75% 18/24	71% 65/92	71% 51/72	59% 13/22	76% 78/102
Breast	94% 297/317	94% 379/405	94% 272/288	93% 92/99	83% 20/24	90% 19/21	96% 89/93	94% 76/81	91% 21/23	94% 87/93
Bowel	87% 186/215	78% 267/342	82% 190/232	75% 46/61	100% 9/9	91% 20/22	87% 58/67	79% 50/63	80% 16/20	77% 64/83
Uterus (womb)	77% 86/111	84% 104/124	84% 53/63	77% 37/48	89% 17/19	70% 7/10	82% 14/17	70% 16/23	82% 14/17	84% 32/38
Pancreas	50% 35/70	52% 69/133	63% 39/62	59% 20/34	57% 4/7	17% 1/6	42% 14/33	49% 17/35	*	33% 7/21
Liver	42% 25/60	34% 46/134	43% 30/69	28% 8/29	32% 6/19	31% 4/13	41% 9/22	33% 6/18	*	38% 8/21

Treatment received within -30 and 365 days of diagnosis.

See glossary for information on surgical, radiation and chemotherapy treatment inclusions.



2.2 | Surgery

What percentage of Aboriginal and Torres Strait Islander people with cancer received cancer surgery by Indigenous region?

n: Number of people who received surgery

N: Number of people diagnosed with cancers of interest

Cancer type	2012-2016	2017-2021	2012-2021							
			Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	13%	16%	18%	17%	6.3%	13%	16%	9.7%	4.5%	13%
	40/297	68/423	49/270	18/106	2/32	3/24	15/92	7/72	1/22	13/102
Breast	89%	86%	88%	87%	71%	81%	90%	91%	83%	87%
	281/317	350/405	253/288	86/99	17/24	17/21	84/93	74/81	19/23	81/93
Bowel	77%	69%	76%	62%	89%	73%	76%	70%	65%	65%
	165/215	236/342	177/232	38/61	8/9	16/22	51/67	44/63	13/20	54/83
Uterus (womb)	76%	77%	81%	73%	89%	70%	71%	57%	82%	79%
	84/111	95/124	51/63	35/48	17/19	7/10	12/17	13/23	14/17	30/38
Pancreas	8.6%	9.0%	13%	8.8%	0%	17%	3.0%	8.6%	*	9.5%
	6/70	12/133	8/62	3/34	0/7	1/6	1/33	3/35		2/21
Liver	8.3%	10%	12%	3.4%	5.3%	0%	18%	5.6%	*	19%
	5/60	14/134	8/69	1/29	1/19	0/13	4/22	1/18		4/21

Surgery received within -30 and 365 days of diagnosis.

See glossary for information on surgical treatment inclusions.

2.3 | Radiation therapy

What percentage of Aboriginal and Torres Strait Islander people with cancer received radiation therapy?

n: Number of people who received radiation therapy (RT)

N: Number of people diagnosed with cancers of interest

Cancer type	2012-2016	2017-2021	2012-2021							
			Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	47%	50%	51%	44%	44%	46%	46%	50%	45%	51%
	139/297	212/423	139/270	47/106	14/32	11/24	42/92	36/72	10/22	52/102
Breast	66%	64%	64%	71%	50%	62%	61%	70%	70%	63%
	208/317	261/405	185/288	70/99	12/24	13/21	57/93	57/81	16/23	59/93
Rectal*	53%	40%	30%	50%	*	83%	57%	42%	55%	54%
	39/74	54/134	24/81	15/30		10/12	13/23	10/24	6/11	13/24
Uterus (womb)	8.1%	23%	19%	15%	16%	0%	24%	13%	24%	11%
	9/111	28/124	12/63	7/48	3/19	0/10	4/17	3/23	4/17	4/38
Pancreas	10%	11%	19%	5.9%	14%	0%	6.1%	5.7%	*	9.5%
	7/70	15/133	12/62	2/34	1/7	0/6	2/33	2/35		2/21
Liver	6.7%	8.2%	10%	3.4%	5.3%	7.7%	0%	11%	*	14%
	4/60	11/134	7/69	1/29	1/19	1/13	0/22	2/18		3/21

RT includes external beam radiation therapy only.

RT received within -30 and 365 days of diagnosis.

See glossary for information on radiation therapy inclusions.

*Radiation therapy is not commonly used in the treatment of colon cancer, so only rectal cancer is reported here.



2.4 | Chemotherapy

What percentage of Aboriginal and Torres Strait Islander people with cancer received chemotherapy?

n: Number of people who received chemotherapy (CT)

N: Number of people diagnosed with cancers of interest

Cancer type	2012-2016	2017-2021	2012-2021							
			Brisbane	Cairns - Atherton	Cape York	Mount Isa	Rockhampton	Toowoomba - Roma	Torres Strait	Townsville - Mackay
Lung	39%	41%	46%	30%	28%	50%	35%	38%	27%	48%
	117/297	173/423	123/270	32/106	9/32	12/24	32/92	27/72	6/22	49/102
Breast	60%	52%	55%	53%	54%	57%	59%	52%	52%	62%
	191/317	211/405	158/288	52/99	13/24	12/21	55/93	42/81	12/23	58/93
Bowel	33%	36%	31%	26%	22%	59%	42%	29%	35%	47%
	70/215	124/342	71/232	16/61	2/9	13/22	28/67	18/63	7/20	39/83
Uterus (womb)	8.1%	21%	17%	15%	11%	10%	12%	13%	18%	16%
	9/111	26/124	11/63	7/48	2/19	1/10	2/17	3/23	3/17	6/38
Pancreas	46%	47%	56%	53%	43%	17%	42%	49%	*	24%
	32/70	62/133	35/62	18/34	3/7	1/6	14/33	17/35		5/21
Liver	35%	22%	30%	21%	21%	23%	23%	22%	*	33%
	21/60	29/134	21/69	6/29	4/19	3/13	5/22	4/18		7/21

CT received within -30 and 365 days of diagnosis.

See glossary for information on chemotherapy inclusions.

2.5 | Time to treatment

What percentage of Aboriginal and Torres Strait Islander people received first cancer treatment within 30 days of diagnosis?

n: Number of people who received treatment within 30 days of diagnosis

N: Number of people diagnosed with cancer of interest who received first treatment (surgery, RT or CT).

Cancer type	2012-2016		2017-2021	
	Public	Private	Public	Private
Lung	39%	35%	34%	63%
	72/186	7/20	93/272	25/40
Breast	46%	86%	26%	76%
	111/239	50/58	81/308	54/71
Bowel	42%	73%	43%	69%
	59/142	32/44	100/231	25/36
Uterus (womb)	21%	67%	19%	44%
	17/80	4/6	18/95	4/9
Pancreas	52%	75%	40%	55%
	14/27	6/8	23/58	6/11
Liver	38%	*	41%	*
	9/24		18/44	

Treatment received within -30 and 365 days of diagnosis.

First treatment occurring at Public/Private Partnerships (PPP) RT facilities has been grouped with first treatment at public facilities.

See glossary for information on surgical, radiation and chemotherapy treatment inclusions.



Demographic information



Cancers of focus

	Lung		Breast		Bowel		Uterus (womb)		Pancreas		Liver	
	N	%	N	%	N	%	N	%	N	%	N	%
Aboriginal and Torres Strait Islander people	720	100%	722	100%	557	100%	235	100%	203	100%	194	100%
Diagnosis time period												
2012-2016	297	41%	317	44%	215	39%	111	47%	70	34%	60	31%
2017-2021	423	59%	405	56%	342	61%	124	53%	133	66%	134	69%
Sex												
Male	371	52%	0	0%	320	57%	0	0%	104	51%	133	69%
Female	349	48%	722	100%	237	43%	235	100%	99	49%	61	31%
Age group at diagnosis												
Median	64		56		61		59		63		60	
<50	61	8%	234	32%	102	18%	45	19%	31	15%	28	14%
50-59	191	27%	187	26%	149	27%	76	32%	48	24%	66	34%
60-69	256	36%	199	28%	151	27%	75	32%	71	35%	56	29%
70+	212	29%	102	14%	155	28%	39	17%	53	26%	44	23%
Remoteness of residence at diagnosis												
Major City	284	39%	299	41%	245	44%	80	34%	63	31%	78	40%
Inner Regional	171	24%	168	23%	136	24%	39	17%	69	34%	32	16%
Outer Regional	159	22%	155	21%	97	17%	58	25%	47	23%	42	22%
Remote & Very Remote	106	15%	100	14%	79	14%	58	25%	24	12%	42	22%
Socioeconomic status												
Affluent	19	3%	33	5%	19	3%	3	1%	7	3%	7	4%
Middle	324	45%	369	51%	257	46%	102	43%	88	43%	86	44%
Disadvantaged	377	52%	320	44%	281	50%	130	55%	108	53%	101	52%

Glossary

Aboriginal and Torres Strait Islander people

This report contains information on cancer among Aboriginal peoples and Torres Strait Islander peoples. This term refers to Aboriginal peoples and Torres Strait Islander peoples, their nations, societies, and language groups that have occupied these lands since time immemorial. Although the authors acknowledge that language such as 'Indigenous' has been imposed upon Aboriginal and Torres Strait Islander peoples implying a lack understanding for diverse Country, cultures, identities and histories, this term has been used in some instances here with an intention of respect including in instances where it is used in government defined geographical boundaries.

Age at diagnosis

The age (in years) at the time of a person's cancer diagnosis

Age - median (years)

The age that divides a population into two halves: one half older than the median, the other half younger than the median.

Age-standardised incidence/mortality (ASR)

Age-standardised rates allow for comparisons between different populations and time periods, taking into account differences in the age distributions of the populations being compared. They are independent of the age-structure of the population of interest.

The age-standardised rate is number of new cases or deaths per 100,000 that would have occurred in a given population if the age distribution of that population was the same as that of the Australian population in 2001 and if the age-specific rates observed in the population of interest had prevailed.

Chemotherapy (CT)

Chemotherapy is the use of drugs to treat a person's cancer. It is often referred to as systemic therapy (ST). This report includes chemotherapy (also including immunotherapy, hormone therapy) within a year of diagnosis which has been delivered via intravenous (CT), intramuscular, sub-cutaneous and intrathecal routes. This report does not include any oral chemotherapy data.

Deaths (mortality)

The number of deaths attributed to cancer in a defined population during a specified time period regardless of when the diagnosis of cancer was made.

Diagnosis (incidence)

The number of new cases of cancer diagnosed in a defined population during a specified time period.

First cancer treatment

The first treatment people with cancer received for their cancer – either surgery, radiation therapy or chemotherapy. Oral chemotherapy is not included in analysis and radiation therapy includes external beam only.

Indigenous regions

The Indigenous regions within this report are sourced from the Australian Bureau of Statistics, who have developed these reporting areas as part of the [Australian Statistical Geography Standard \(ASGS\)](#). Further detail on the Indigenous Structure within the ASGS can be found [here](#).



Indigenous Regions (IREGs) are large geographic areas built from whole Indigenous Areas and are based on historical boundaries. The larger population of Indigenous Regions enables highly detailed analysis. There are 59 Indigenous Regions covering the whole of Australia without gaps or overlaps, including 8 Queensland Indigenous Regions.

Private hospital

All other hospitals that are not Queensland Health hospitals.

Public hospital

Queensland Health hospitals.

Public/Private Partnership facilities (PPP)

Cooperative arrangement between public and private radiation therapy services in the form of a contract.

Radiation therapy (RT)

Radiation therapy (also called radiotherapy) treats cancer by the use of high doses of radiation to kill cancer cells. In this report we include all external beam radiation therapy delivered within one year of a cancer diagnosis.

Remoteness

The relative remoteness of residence at time of diagnosis, derived from the [Australian Statistical Geography Standard \(ASGS\) 2016](#). Within this report, remoteness is modified as per the table below.

ASGS classifications	Modified ASGS classification
Major City	Major City
Inner Regional	Inner Regional
Outer Regional	Outer Regional
Remote	Remote and Very Remote
Very Remote	Remote and Very Remote

An exception to this grouping is the metropolitan area of Townsville (originally classified as Rural). Townsville has been classified as Metropolitan because of the availability of tertiary level cancer services.

Sex

Refers to the biological and physiological characteristics that define men and women.



Socioeconomic status

Socioeconomic status is based on the Socio-Economic Indexes for Areas (SEIFA), a census-based measure of social and economic well-being developed by the Australian Bureau of Statistics (ABS) and aggregated at the level of Statistical Area Level 2 (SA2).

The ABS use SEIFA scores to rank regions into ten groups (or deciles) numbered one to ten, with one being the most disadvantaged and ten being the most advantaged group. This ranking is useful at the national level, but the number of people in each decile often becomes too small for meaningful comparisons when applied to a subset of the population. For this reason, this document further aggregates SEIFA deciles into 3 socioeconomic groups.

SEIFA Group	Decile	Percentage of population (approximate)
Disadvantaged	1-2	20%
Middle	3-8	60%
Affluent	9-10	20%

Statistical analysis

All analyses were conducted using R version 4.4.0, excluding calculations relating to relative survival. Relative survival analysis was conducted using Stata/MP 15.0 (Stata Corp LLC, College Station, TX, USA).

Surgery/Major Resection

For more information regarding procedure codes used to define cancer surgery for this report, please refer to the [Queensland Cancer Quality Index 2007-2021: Technical Appendix](#). This report includes cancer surgeries as defined by this document which occurred within a year of their diagnosis.

Survival

Relative survival is a net survival measure representing cancer survival in the absence of other causes of death.

Relative survival is defined as the ratio of the proportion of observed survivors in a cohort of people with cancer to the proportion of expected survivors in a comparable set of cancer-free individuals.

Time to first cancer treatment

Time between the pathological diagnosis of cancer and first cancer treatment where first treatment occurred within a year of diagnosis.

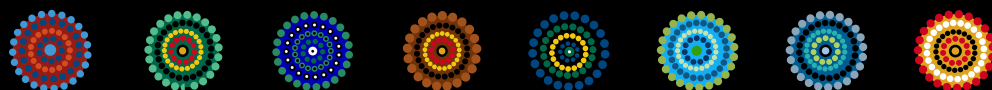
Treatment

In this report, treatment describes any surgery, radiation therapy and/or chemotherapy a person with cancer receives within one year of their cancer diagnosis. Oral chemotherapy is not included in this analysis and radiation therapy includes external beam only. See Surgery/Major Resection, Chemotherapy and Radiation Therapy and Queensland Cancer Quality Index 2007-2021: Technical Appendix for more information regarding treatment inclusions.



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